

**IN THE UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF TEXAS  
DALLAS DIVISION**

**MGNACROSS LLC,**

Plaintiff,

v.

**OKI DATA AMERICAS INC.,**

Defendant.

**Case No. 3:20-cv-01959-M**

**JURY TRIAL DEMANDED**

**PLAINTIFF MAGNACROSS LLC'S OPPOSITION TO  
DEFENDANT OKI DATA AMERICAS INC.'S MOTION TO  
DISMISS FOR FAILURE TO STATE A CLAIM**

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Exhibit A	U.S. Patent No. 6,917,304
Exhibit B	Amendment and Response to First Office Action for Serial No. 09/402,262 dated December 14, 2004
Exhibit C	Notice of Allowability dated February 11, 2005

Plaintiff Magnacross LLC (“Magnacross”) hereby opposes Defendant Oki Data America Inc.’s (“Oki” or “Defendant”) Motion to Dismiss for Failure to State a Claim (Dkt.No. 26) (“Oki’s Motion”).

## **I. INTRODUCTION**

This Court has *already denied* a Rule 12 Alice Motion against the *same claims of the same patent*. See *Magnacross LLC v. A.B.P. International Inc.*, Case No. 3:18-cv-02368-M, Document 27, slip op. at 2. Oki neglected to mention this ruling nor why the Court should reach a different conclusion when presented with virtually the same issue of law.

In its Motion, Oki argues that the claims of U.S. Patent No. 6,917,304 are not eligible for patenting under 35 U.S.C. §101 (“§101”). On the first step of the § 101 analysis, Oki argues that the claims are directed to the abstract idea of “transmitting information from multiple sensors.” Although the claims fall under this very broad field, which includes both wired and wireless transmissions, the claims solve a specific problem related to wirelessly transmitting information from multiple sensors: inefficient bandwidth usage when wirelessly transmitting data from local data sensors have substantially different data rate requirements. As explained in the patent’s specification, although there were many attempts to solve the problem, none were effective. The inventors invented a specific apparatus for dividing the communications channel for transmitting the data and allocating data from the local sensors to the sub-channels to more efficiently use bandwidth, as shown in claim 1. The claims are patent eligible because they are directed to a specific way to solve a problem in computer technology that improves computer functionality.

Even if the Court finds that the claims are directed to Defendant’s alleged abstract idea, under the second step of the §101 analysis, the claims are more than drafted to monopolize the idea of “transmitting information from multiple sensors.” Claim 1 requires a multiplexer that asymmetrically divides a communications channel into sub-channels such that the carrying

capacities of the sub-channels are unequal; and a control means that allocates data from the local data sensors to one or a group of the sub-channels in accordance with the substantially different data rate requirements of the local sensors. As explained in the patent specification and prosecution history, these features are neither generic or conventional. Similarly, claim 1 requires dividing the communications channel asymmetrically and allocating data from the local data sensors with substantially different data rates in a particular way. Claims 1 and 12 therefore do not monopolize the overbroad idea of “transmitting information from multiple sensors.”

Finally, Oki’s contention that Magnacross has not provided sufficient details to plead infringement relies on an incorrect analysis of the law. The complaint is only required to have a short and plain statement of the claim and there is no heightened fact pleading standard. The complaint puts Oki on fair notice of the claim of infringement, the accused product, and the basis for the claim. No further factual pleadings are required.

The Court should therefore deny Defendant’s motion to dismiss.

## **II. STATEMENT OF THE CASE**

On July 24, 2020, Magnacross filed a complaint for patent infringement alleging that Oki products infringed at least claim 1 of U.S. Patent No. 6,917,304. (Dkt. No. 1). On April 2, 2021, Oki filed this motion to dismiss alleging that all claims of the ‘304 patent are invalid under §101 and that Magnacross has failed to properly plead infringement. (Dkt. No. 26). Magnacross files this opposition to Oki’s motion to dismiss.

## **III. STATEMENT OF FACTS**

The patent-at-issue, the ‘304 patent, is titled “Wireless Mutlplex [*sic*] Data Transmission System.” (¶9, Ex. A at cover (A002)). Magnacross owns all right, title and interest in the ‘304 patent. (*Id.* at ¶10).

**A. Background of the Invention**

The invention relates to methods and apparatuses for the wireless transmission of data through a communications channel from at least two local data sensors with substantially different data rates to a data processor. (Ex. A at col. 1:4-7, col. 1:60-2:13 (A007)).

Prior to the filing of the initial application in 1997, the inventors recognized that there were problems with the efficient transmission of data to data processors from local data sensors that had substantially different data rates. (Ex. A at col. 1:4-7; col. 2:5-13 (A007)). Conventional methods of transmitting sensor data usually transmitted data from data sensors to the data processors using cables that put limitations on the convenience and operations of the equipment. (*Id.* at col. 1:37-40 (A007)). Attempts were made to improve the use of cable connectors, but none eliminated the inconvenience of using cables. (*Id.* at col. 1:42-50 (A007)).

Then there were attempts to achieve wireless transmission from the data sensors to data processors using conventional wireless transmission systems, but they had shortcomings. (*Id.* at col. 1:51-53 (A007)). One main issue with the conventional wireless transmission systems is they resulted in inefficient bandwidth utilization due to excessive bandwidth requirement for some combinations of data sensors. (*Id.* at col. 1:50-2:1 (A007)). For example, in a system in which there are both sensors that require high data transmission rates and sensors that require lower data transmission rates, a conventional system would set aside the same amount of bandwidth for both types of sensors necessarily resulting in overutilization or underutilization of bandwidth requirements. (*See id.*; col. 3:19-27 (A008)). Other attempts to solve the problem were unsuccessful. (*Id.* at col. 2:14-59 (A007)).

The '304 patent's specification cites to a dozen U.S. and foreign patent that attempted, but failed, to solve the problem. (*Id.* at col. 2:27-59 (A007)). For example, European Patent EP 0 483 549A2, assigned to IBM, separated the control channel from the data channel, to allow the control

channel bandwidths to be made significantly smaller. (*Id.* at col. 2:16-26 (A007)). In another foreign patent, WO 89/09522, the claimed method allocated “bandwidths in a broadband packet switching network using a set of parallel packet channels that acted as a single data link connections between packetchannels.” (*Id.* at col. 2:27-36 (A007)). And, another foreign patent example, EP 0515 728 A2, used a specific “protocol for establishing a duplex link between first and second data link devices.” (*Id.* at col. 2:37-40 (A007)). None of these patents solved the problem of inefficient use of bandwidth when transmitting data from local sensors having substantially different data transmission rates.

The inventors therefore created a method and apparatus by which local data sensors with substantially different data rates required for data transmission would have the data transmitted wirelessly over an asymmetrically divided communication channel such that the data from the sensors is allocated to ones or groups of the sub-channels based on the data carrying capacities of the sub-channels. (*See id.* at col. 3:2-27 (A008); col. 7:30-45 (A010); col. 8:20-35 (A010)). For example, a data sensor with higher data rate requirements was assigned a sub-channel or group of sub-channels with a higher data rate capacity and a data sensor with lower data rate requirements was assigned a sub-channel with a lower data rate capacity. (*E.g., see id.* at col. 3:2-27 (A008); col. 5:22-26 (A009)).

#### **B. U.S. Patent No. 6,917,304 –Claim 1**

The ‘304 patent involves, *inter alia*, a method for wireless transmission of data through a communications channel between at least two local data sensors and a data processing function to receive data from the local sensors. (*Id.* at Ex. A at Abstract (A002)). Claim 1, which is asserted in the Complaint, is an method for the wireless transmission of data from datasensors to a data processor:

1. A method of wireless transmission of data in digital and/or analogue format through a communications channel from at least two data sensors to a data processing means said



method comprising the step of division of said channel into sub-channels and transmitting said data from said data sensors respectively through said sub-channels accordingly;

characterized by

a) said step of division of said communications channel being effected asymmetrically whereby the data carrying capacities of said sub-channels are unequal; and

b) the data rate required for data transmission from said local sensors differing substantially between said at least two sensors; and

c) allocating data from said local data sensors to respective ones or groups of said sub-channels in accordance with the data carrying capacities of said sub-channels.

#### **IV. STATEMENT OF LAW**

The standard for ruling on a motion to dismiss under Federal Rule of Civil Procedure 12(b)(6) is whether, under any plausible reading of the pleadings, the plaintiff would be entitled to relief. *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). When evaluating such a motion, “the court must draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

##### **A. Invalidity Under 35 U.S.C. §101**

A patent is presumed valid and the burden of establishing invalidity of any patent claim rests on the party asserting invalidity. 35 U.S.C. §282; *Microsoft Corp. v. i4i Ltd.*, 131 S.Ct. 2238, 2245 (2011); *Commil USA, LLC v. Cisco Sys.*, 135 S.Ct. 1920, 1929 (2015). This applies any time an infringer argues “that the patent should never have issued in the first place.” *Microsoft*, 131 S.Ct. at 2242. Invalidity must be proven by clear and convincing evidence. *Id.* at 1250; *Commil*, 135 S.Ct. at 1929. Moreover, on “a motion to dismiss under Rule 12(b)(6), [ ] all factual inferences drawn from the specification must be weighed in favor of [ ] the non-moving party.” *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1261-62 (Fed.Cir. 2017).

Section 101 defines patent eligible subject matters as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. §101. All inventions in effect embody, use, or apply laws of nature, natural phenomena, or abstract ideas so an invention is not patent-ineligible merely because it involves one of these. *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2354 (2014). Although patenting a building block of ingenuity risks disproportionately tying up the use of the underlying ideas, integrating the building blocks into something more “pose[s] no comparable risk of pre-emption.” *Id.* at 2354-55.

The analysis of whether an invention is directed to an abstract idea under §101 consists of two steps. *Mayo Collaborative Serv. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289, 1296-1297 (2012). The first step “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice Corp.*, 134 S.Ct. at 2355. If the claims are not directed to a patent ineligible concept, then the analysis ends because the claims are patentable under §101.

However, if the Court finds that the claims are directed to a patent ineligible concept, then the Court turns to the second step and “examine[s] the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice Corp.*, 134 S.Ct. at 2357 (*citing Mayo*, 132 S.Ct. at 1294, 1298). Even if an invention recites an abstract idea, the invention is patentable if it has “additional features to ensure that the claim is more than drafted to monopolize the abstract idea.” *Id.* (*citing Mayo*, 132 S.Ct. at 1297). The limitations must be considered both individually and as an ordered combination in this step. *Id.* at 2355.

If “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks,” then the claims are not abstract. *DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245, 1257 (Fed.Cir. 2014). Similarly, claims are patent eligible when they “enable[] a computer [ ] system to do things it could not do before.”

*Finjan, Inc. v. Blue Coat Sys.*, 879 F.3d 1299, 1305 (Fed.Cir. 2018). Even if the claims use only generic computers, software claims are patent-eligible if the claims do not preempt the alleged abstract idea on the Internet or on generic computer components performing conventional activities. *Bascom Global Internet Serv. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350-51 (Fed.Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338 (Fed.Cir. 2016). So long as the novelty is not simply using a computer, “processes that automate tasks that humans are capable of performing are patent eligible if properly claimed.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1313 (Fed.Cir. 2016).

Although determination of patent eligibility under §101 is a question of law, there can be subsidiary fact questions that must be resolved in route to the ultimate legal determination. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1127-1128 (Fed.Cir. 2018). For example, whether the claim elements or claimed combination are well-understood, routine, or conventional is a question of fact. *Id.* Such fact questions may not be able to be answered adverse to the patentee based on the sources properly considered in a motion to dismiss, such as the complaint, patent, and materials subject to judicial notice. *Id.*

## **B. Standard for Sufficiency of Complaint**

Under Rule 8(a)(2), Fed.R.Civ.P., a pleading is sufficient if it contains “a short and plain statement of the claim showing that the pleader is entitled to relief.” As opposed to a “heightened fact pleading of specifics,” a complaint is only required to have allegations sufficient to show that the plaintiff is plausibly entitled to relief. *Twombly*, 550 U.S. at 555-56, 570. Whether a complaint states a plausible claim for relief is a context-specific task that requires the Court “to draw on its judicial experience and common sense.” *Ashcroft v. Iqbal*, 129 S.Ct. 1937, 1950 (2009). “Specific facts are not necessary; the statement need only ‘give the defendant fair notice of what the... claim is and the ground upon which it rests.’” *Erickson v. Pardus*, 551 U.S. 89, 93 (2007) (alteration in

original) (internal quotation marks omitted) (*quoting Twombly*, 550 U.S. at 555); *McZeal v. Sprint Nextel Corp.*, 501 F.3d 1354, 1357 (Fed.Cir. 2007) (*citing Twombly*, 550 U.S. at 565 n.10).

The Federal Circuit recently address the standard for pleading infringement reaffirming that it has never recognized a difference between pleading under old Form 18, Fed.R.Civ.P., and pleading under *Iqbal/Twombly* pleading standard. *Disc Disease Sols. Inc. v. VGH Sols., Inc.*, 888 F.3d 1256, 1259 n.3 (Fed.Cir. 2018). The complaint in *Disc Disease* attached the asserted patents, which consisted of four independent claims, identified the accused products by name and attached photos of packaging, and alleged that the accused products meet “each and every element of at least one claim [of the asserted patents] either literally or equivalently.” *Id.* at 1260. The Federal Circuit held that the complaint satisfied the *Iqbal/Twombly* standard. *Id.*

## V. ARGUMENT

The claims of the ‘304 patent are directed to patent-eligible subject matter under §101. The claims are not directed to “transmitting information from data sensors through said sub-channels.” Instead, the claims improve the efficient bandwidth usage for the wireless transmission of data from local data sensorshaving substantially different data transmission rates. The claims are therefore patent eligible because they are necessarily rooted in computer technology to overcome a problem specifically arising in the realm of computer networks. In the second step of the §101 analysis, the claims aremore than drafted to monopolize “transmitting information from data sensors.” The claims are different from many other attempts to solve the problem in the same area of “transmitting information from data sensors.” Furthermore, the claims solve a problem in a specific way: the communications channel is divided asymmetrically so that the sub-channels are unequal, and data from the data sensor is assigned to one or groups of the sub-channels in accordance with the substantially different data rate requirements. The claims therefore do not monopolize “transmitting information from data sensors.”

As for Magnacross's pleading of direct infringement, Magnacross's Complaint sufficiently pleads infringement to put Oki on fair notice of the accusation and the basis for the allegation.

Oki's Motion should therefore be denied.

**A. The Claims are Patentable Under 35 U.S.C. §101**

Under the first step of the §101 analysis, Defendant makes the overbroad assertion that the claims are directed to abstract idea of "transmitting information from data sensors through said sub-channels." This is an overbroad description of the field in which the problem lies, not what the claims are directed to. As explained in the '304 patent, there were problems with the efficient wireless transmission of data from multiple sensor and many failed attempts to solve the problems. The claims are not directed to generally transmitting information from data sensors. Instead, the inventors recognized a particular problem with the transmission of data from multiple sensors, namely inefficient bandwidth utilization and then invented a specific new method and apparatus to more efficiently use bandwidth to transmit data from sensors with substantially different data rates. (*See id.* at col. 3:2-27 (A008); col. 7:30-45 (A010); col. 8:20-35 (A010)). This is not an abstract idea.

Even if the Court were to agree that the claims are directed to the idea of "transmitting information from data sensors," under the second step of the §101 analysis, the claims have additional features to ensure that the claims are more than drafted to monopolize the alleged abstract idea, including (a) a multiplexer being adapted to divide said communications channel asymmetrically whereby the data carrying capacities of said sub-channels are unequal and (b) control means adapted to allocate data from said local data sensors to respective ones or group of said communications sub-channels in accordance with substantially different data rate requirements from said local sensors. The claims are therefore patent-eligible under §101.

**1. Claims 1 and 12 Are Directed to Patent-Eligible Subject Matter**

The claimed inventions are patent-eligible under §101 because they do not recite an

abstract idea. In the context of computer software, the Federal Circuit held that the inquiry in the first step is “whether the focus of the claims is on the specific asserted improvement in computer capabilities... or instead, on a process that qualifies as an ‘abstract idea.’” *Enfish*, 822 F.3d at 1335-36. The claims here are directed to improved computer functionality and do not recite a mathematical algorithm, an economic practice, or a pre-computer business practice. *Id.* at 1336; *DDR Holdings*, 773 F.3d at 1257; *McRO*, 837 F.3d at 1314. The claims are patent-eligible because they are rooted in a particular computer technology that necessarily requires a computer system and enable the system to do things better than it could do before. *Enfish*, 822 F.3d at 1336; *Finjan*, 879 F.3d at 1305; *Core Wireless Licensing v. LG Elecs., Inc.*, 880 F.3d 1356, 1363 (Fed.Cir. 2018).

**a) Claims 1 & 12 Do Not Recite an Abstract Idea**

The focus of claims 1 and 12 is on a specific asserted improvement in computer capabilities by solving problems related to efficiently transmitting data wirelessly to data processors from multiple data sensors. (Ex. A at col. 1:4-7 (A007), col. 1:50 – 2:1 (A007); col. 2:5-13 (A007)). More specifically, the claims improve upon the transmission of data from sensors have substantially different data transmission requirements. (*Id.*). In prior art systems, the different data transmission rates for the data sensors resulted in inefficient bandwidth utilization during the wireless transmission of data from data sensors to data processors. (*Id.*). The claims solve this problem in a particular way: dividing a wireless communications channel into asymmetrical sub-channels so that the data carrying capacities of the subchannels are unequal, and allocating data from the data sensors to the sub-channels in accordance with the data carrying capacities of the sub-channels. (*Id.* at col. 7:37-45 (A010), col. 8:27-35 (A010)).

The specification and prosecution also support that the problem solved is one that solely exists when wirelessly transmitting data from multiple data sensors. *See Enfish*, 822 F.3d at 1337 (looking to the specification to find benefits over the prior art); *McRO*, 837 F.3d at 1314; *Core*

*Wireless*, 880 F.3d 1363. The specification explains that the prior art had problems with efficient bandwidth utilization using conventional wireless transmission systems. (*Id.* at col. 1:50–2:1 (A007)). The specification cites to a dozen U.S. and foreign patents to explain other attempts to solve the problem that failed. (*Id.* at col. 2:27-59 (A007)). The specification and claims describe the specific apparatus and method by which a communications channel would be asymmetrically divided into sub-channels with unequal data carrying capacities, and data from data sensors would be allocated to the sub-channels in accordance with the substantially different data rate requirements of the sensors. (Ex. A at col. 7:37-39, 43-45 (A010), col. 8:27-35 (A010); *also* col. 1:60-col. 2:13 (A007); Ex. B at 8 (A020)). Finally, the specification explains that the invention solved the problem with a more “economical use of the available bandwidth” for the transmission of data from local data sensors with substantially different data rate requirements. (Ex. A at col. 3:8-18 (A008)). The claims are therefore patent-eligible because they are “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings*, 773 F.3d at 1257; *also id.* at 1256-57; *Enfish*, 822 F.3d at 1339; *McRO*, 837 F.3d at 1313, 1316.

The claims implement the invention using a specific structure for dividing the communications channel and allocating data from the sensors. (Ex. A at col. 7:37-39, 43-45 (A010), col. 8:27-35 (A010); *also* col. 1:60-col. 2:13 (A007); Ex. B at 8 (A020)). Claim 1 is a method claim requiring specific hardware and software to perform the operations: a multiplexer, transmitter, and control means. The multiplexer is a new type of multiplexer that is adapted to divide a communications channel asymmetrically so that the data carrying capacities of the sub-channels are unequal. (Ex. A at col. 8:27-30 (A010)). Furthermore, the control means is also new because it allocates data from local data sensors to one or a group of communications sub-channels in accordance with substantially different data rate requirements from the local data sensors. (*Id.* at col. 8:31-35 (A010)). The patent has examples<sup>16</sup> of the implementation of the new multiplexer,



transmitter and control means in Figures 2 and 4. (*Id.* at col. 5:53 – col. 6:16 (A009); Figs. 2, 4 (A004-05)). Claim 1 is a corresponding method claim that likewise requires a specific structure. In claim 1, the communications channel is divided asymmetrically so that the data carrying capacities of the sub-channels are unequal. (*Id.* at col. 7:37-39 (A010)). Furthermore, the data from the local data sensors must be allocated to one or a group of the subchannels in accordance with the data carry capacities of the sub-channels. (*Id.* at col. 7:43-5 (A010)). The claims are therefore patent-eligible because they are rooted in computer technology that necessarily requires a computer system and enables the system to do things it could not do before. *Enfish*, 822 F.3d at 1336; *Finjan*, 879 F.3d at 1305; *Core Wireless*, 880 F.3d at 1363. Even Defendant’s alleged abstract idea acknowledges that the claims are rooted in computer technology because they require transmitting information from multiple sensors.

**b) Defendant’s Abstract Idea Only Describes an Overbroad Field of the Invention and Not What the Claims are Directed to**

The Federal Circuit has cautioned against describing claims at such a high level of abstraction that they are untethered to the claim language, yet that is what Defendant did. *Enfish*, 822 F.3d at 1337 (citing *Alice*, 134 S.Ct. at 2354); also *McRO*, 837 F.3d at 1313; *Core Wireless*, 880 F.3d at 1361-62. Defendant makes the overbroad assertion that the claims are directed to the abstract idea of “transmitting information from data sensors.” This abstract idea oversimplifies the claim language and only provides an overbroad description of the field of the invention, not what the claim is directed to. *McRO*, 837 F.3d at 1313; *Enfish*, 822 F.3d at 1337.

The actual field of the invention is much smaller than the alleged abstract idea. The field of the invention is “wireless transmission of data, through a communications channel comprising at least two local data sensors and a data processing function to receive data from the local sensors.” (Ex. A at col. 1:4-7 (A007)). Defendant’s alleged abstract idea of “transmitting information from data sensors” would cover a much broader field including wired (*e.g.*, by cable) transmission of data from multiple data sensors, which had different problems including the

inconvenience of running cables. (*Id.* at col. 1:37-50 (A007)). The alleged abstract idea is also overbroad because it covers sending data from sensors with the same data rate requirements, which does not have the problem sought to be solved by the patented invention, and the idea does not reference communications channels. (*Id.* at col. 1:62 – col. 2:63 (A007)).

The claims of the ‘304 patent are solving a problem particular to wireless transmission of data from multiple sensors, not general communications that would include wired communications. More particularly, the claims are solving a problem particular with the wireless transmission of data from multiple sensors that have substantially different data rate requirements, which is inefficient bandwidth usage that resulted from using conventional wireless transmission systems. (Ex. A at col. 1:62 – col. 2:13 (A007)). The patent explains that there were many different patented attempts at solving this problem that failed. (*Id.* at col. 2:14-59 (A007)). Rather than using any of the prior art methods, the inventors more efficiently used bandwidth to transmit data from local data sensors having substantially different data rates in an unconventional way: (1) asymmetrically dividing a communications channel into sub-channels with unequal data carrying capacities, and

(2) allocating data from data sensors to the sub-channels in accordance with the substantially different data rate requirements of the sensors. (Ex. A at col. 7:37-39, 43-45 (A010), col. 8:27-35 (A010); *also* col. 1:60-col. 2:13 (A007); Ex. B at 8 (A020)). By failing to recognize the problem or the particular solution, Defendant’s alleged abstract idea is incorrect. *McRO*, 837 F.3d at 1313; *Enfish*, 822 F.3d at 1337.

**c) Claims 1 and 12 Require a Particular Concrete and Tangible Form that is Unconventional**

Defendant incredibly alleges that the claims are directed to nothing more than “dividing data channels and transmitting data from sensors through sub-channels” Motion, 7. However, claim 1 requires a multiplexer capable of performing a particular function, a transmitter, and a control means capable of performing a particular function. (Ex. A at col. 8:20-35 (A010)). Claim 1

states that the communications channel is divided by a multiplexer, data is transmitted through sub-channels using a transmitter, and a control means allocates data from the data sensors to the sub-channels in accordance with the substantially different data rate requirements. (Ex. A at col. 8:23-35 (A010)). The multiplexer, transmitter, and control means are specific hardware that are described in the specification. (*e.g., id.* at col. 6:1-25 (A009); Figs. 1, 2, 4 (multiplexer) (A003-5); col. 5:15-64 (A009), Figs. 2-3 (transmitter) (A004); col. 3:28-43 (A008); col. 6:1-16, 29-35 (A009); Figs. 2(64), 4 (control means) (A004-5)).

Oki's allegation that the claimed "'data sensors' are nothing more than generic and conventional transmitters that may transmit raw or preprocessed data" is contradicted by the specification. Motion, 8. Conventional systems were designed to assign the same bandwidth to different sensors, regardless of the data bandwidth requirements. (Ex. A at col. 1:57-col. 2:13 (A007)). This resulted in inefficient data transmission. (*Id.*). The specification identified a dozen foreign and U.S. patents directed to allocating bandwidth that did not solve this problem. (*Id.* at col. 2:14-59 (A007)). The prosecution history likewise disclosed additional prior art patents that did not solve the problem of inefficient bandwidth allocation for data from sensors with different data rates. (Ex. B at 8 (A020)). Recognizing the problems of the prior art, the claims require a unconventional multiplexer adapted to divide said communications channel asymmetrically whereby the data carrying capacities of the sub-channels are unequal. (Ex. A at col. 8:27-29 (A010)).

The specification also has two separate examples of the unconventional multiplexer to divide the communications channel asymmetrically. (Ex. A at col. 5:15 – col. 6:57 (A009), Figs. 2-5 (A004-05)). The controller also operates in an unconventional manner. As explained in the claims and the specification, the controller controls the multiplexing function to allocate the data as required by the claims. (Ex. A at col. 5:25-27 (A009); col. 6:7-16 (A009)). The claims are patent

eligible because there is no evidence that the claimed process and apparatus was previously used in the prior art, even if they operate on a general-purpose computer. *McRO*, 837 F.3d at 1314 (“While the rules are embodied in computer software that is processed by general-purpose computers, Defendant provided no evidence that the process previously used [ ] is the same as the process required by the claims.”).

Claim 1 is the corresponding method claim for the apparatus of claim 1. As a method claim, it claims steps, not equipment, and so it is not required to describe the hardware used. The language of this claim is no different than the patent-eligible claims in *McRO*, which had no reference to any hardware. 837 F.3d at 1307-1308. Because reference to new hardware is not required for patentability, Oki’s contention that the claims are not patent eligible because only generic hardware is required is not persuasive. Whether the invention can be programmed on general purpose communications hardware does not “doom [ ] the claims” because the claims “are directed to an improvement in the functioning of a computer.” *Enfish*, 822 F.3d at 1338; *also McRO*, 837 F.3d at 1314; *Bascom*, 827 F.3d at 1350-51. This is not a situation in which “general-purpose computer components are added post-hoc to a fundamental economic practice or mathematical equation.” *Enfish*, 822 F.3d at 1339. Instead, this invention is one that can only exist on computers.

The claims are similar to the claims directed to a set of rules in *McRO*. The claims here are limited to dividing a communications channel into sub-channels and assigning data to the sub-channels in a very specific way. 837 F.3d at 1313. The claims are limited to dividing the channel using a common characteristic: dividing the communications channel asymmetrically so that the data carrying capacities are unequal. (Ex. A at col. 7:37-39 (A010), col. 8:27-29 (A010)); *McRO*, 837 F.3d at 1313. The claims further require that data from multiple sensors with substantially different data

transmission requirements are then assigned to those sub-channels in accordance with the substantially different data transmission requirements. (Ex. A at col. 7:40-45 (A010), col. 8:31-35

(A010)). *McRO* likewise had a general set of rules that were then applied in a particular situation. 837 F.3d at 1313. Claims 1 and 12 therefore do not use conventional computer equipment.

## 2. The Claims Include Inventive Steps

Even if the Court finds that Defendant's alleged abstract idea is applicable to the claims, the claims are patent eligible under the second step of the §101 analysis. The second step of a §101 analysis "examine[s] the elements of the claim [individually and as an ordered combination] to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 134 S.Ct. at 2357. Oki's analysis is superficial and does not address the limitations individually or as an ordered combination.

The inventive concept of the claims is found in two significant limitations that distinguish the claims from the abstract idea: dividing the communications channel asymmetrically whereby the data carrying capacities of the sub-channels are unequal; and allocating data from the data sensors to the sub-channels according to the substantially different data rate requirements. (Ex. A at col. 7:37-39, 43-45 (A010), col. 8:27-35 (A010)). The specification explains that prior art multiplexing and data allocation systems inefficiently used bandwidth. (Ex. A at col. 1:60-col. 2:59 (A007)) These two limitations achieved "the economical use of the available bandwidth" thereby improving upon the prior art that suffered from "non-utilisation of sub-channel bandwidths for significant numbers of sensors whereby the overall utilisation of data transmission, capacity allocation has been very far from perfect." (*Id.* at col. 3:11-27 (A008); *generally* col. 2:65-col. 3:27 (A007-8)). As explained above, none of these limitations are conventional or generic. When the claims contain limitations "directed to the arguably unconventional inventive concept described in the specification," the specification supports improved computer functionality. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1370 (Fed.Cir.2018). The prosecution history, in both a response to an office action and the Notice of Allowability, also used these same two limitations to distinguish the claims from the prior art. (Ex. B at 8 (A020); Ex. C (A024-27)).

Defendant's argument that certain elements of the claimed invention are generic or conventional merely because they are in the prior art has been rejected by the Federal Circuit. "Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional." *Berkheimer*, 881 F.3d at 1369 (Fed.Cir. 2018). Defendant's argument is therefore not supported by the evidence in the record. Both the specification and prosecution history explain that the claimed invention was not routine and was unconventional because it improved the efficiency of bandwidth usage of wireless data transmissions in certain situations. (Ex. A at col. 2:65-col. 3:11 (A007-8)).

Defendant cites to cases that have nothing to do with the claims at issue here. (See Dkt. No. 13 at 13-14). In *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347 (2014), the claim was a business method directed to the concept of intermediated settlement. *Id.* at 2356. The Supreme Court found that "[n]early every computer would include" a data processing system, communications controller, and data storage unit. *Id.* at 2360. In this case, generic computers would not contain a multiplexer that divides a wireless communications channel asymmetrically such that the data carrying capacities are unequal, or the control means that allocates the data in the particular way required by the claims. (Ex. A at col. 8:27-33 (A010); *also* col. 7:37-45 (A010). *Elec. PowerGrp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed.Cir. 2016), *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367-71 (Fed.Cir. 2015), and *DealerTrack, Inc. v. Huber*, 674 F.3d 1315, 1319-20 (Fed.Cir. 2012) involved data collection and analysis, which is not at issue in these claims, which instead relate to how to more efficiently use bandwidth to transmit data from data sensors. None of the claim language relates to data collection or analysis.

The claims therefore do not merely recite the alleged abstract idea "along with the requirement... to perform it on a set of generic computer components." *Bascom*, 827 F.3d at 1350. "Nor do the claims preempt all ways" of transmitting information from multiple sensors. *See id.*;

*also McRO*, 837 F.3d at 1315. Instead, the claims provide a new and improved method and system that more efficiently use bandwidth for the transmission of data from multiple data sensors with substantially different data rate requirements, which is performed in a specific new way. (Ex. A at col. 3:2-27 (A008)). The claims are therefore patent-eligible under the second step of the §101 analysis.

**B. This Court has already denied a Rule 12 Alice Motion against this Patent**

Oki neglected to mention that this Court has already denied virtually the same motion against the same patent before. *See, A.B.P. International*, slip op. at 2 (“After reviewing the pleadings and the arguments of the parties, the Court concludes that the issue of patent eligibility should not be decided until claim construction has occurred.”).

Since Oki has failed to provide any reason why the Court should reach a different conclusion when faced with effectively the same issue of law, the Court should reach the same conclusion.

**CONCLUSION**

For the foregoing reasons, Defendant’s Motion to Dismiss should be denied.

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Respectfully submitted,

*/s/ Papool S. Chaudhari*

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**CERTIFICATE OF SERVICE**

The undersigned certifies that a copy of the foregoing document was served on all counsel of record who have appeared in this case on May 7, 2021, and who are deemed to have consented to electronic service via the Court's CM/ECF system pursuant to Local Rule.

/s/ Papool Chaudhari  
Papool Chaudhari